

## **REMARKS**

### **Claim Amendments**

Claim 1 has been amended herein to remove the term “racemic” and to recite that the modified CpG dinucleotide is 2'-O-substituted CpG. Claims 3 and 4 are amended herein to include the subject matter of Claim 1 as previously presented. Claim 5 has been amended herein to remove the term “racemic”. Support for these amendments can be found throughout the specification and in the claims as originally filed. No new matter has been added.

### **Double Patenting**

Claims 1 and 3-5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-7 of U.S. Patent No. 5,856,462.

Enclosed herewith is a terminal disclaimer whereby Idera Pharmaceuticals, Inc., owner of 100% interest in the instant application, disclaims any portion of the term of any patent granted on this application that would extend beyond the natural expiration of U.S. Patent No. 5,856,462, or beyond the term of common ownership of any patent granted on this application and U.S. Patent No. 5,856,462.

### **Rejection of Claims 1 and 3-5 Under 35 U.S.C. §112, Second Paragraph**

Claims 1 and 3-5 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Office Action states that the recitation of the term “racemic” is unclear in view of the ordinary meaning of the term.

Claims 1 and 5 have been amended to remove the term “racemic” from the claims, thereby rendering the rejection moot. Reconsideration and withdrawal of the rejection are respectfully requested.

Additionally, Claims 1 and 3-5 are rejected because, according to the Office Action, the recitation of the phrase “the modified CpG” in Claims 1 and 5 lacks sufficient antecedent basis.

Claim 1 has been amended to clearly recite the subject matter Applicants regard as the invention. However, Claim 5 is clear and needs no further amendment. The preamble of Claim

5 relates to a CpG containing oligonucleotide comprising a CpG modification (see a) of Claim 5). Therefore, the phrase “the modified CpG” clearly refers to the CpG dinucleotide. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 1 and 3-5 Under 35 U.S.C. §112, First Paragraph

Claims 1 and 3-5 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

The term “racemic” has been removed from Claims 1 and 5, thereby rendering the rejection moot. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 1 and 3-5 Under 35 U.S.C. §102(b)

Claims 1 and 3-5 are rejected under 35 U.S.C. §102(b) as being anticipated by Cook (US 5,212,295).

This rejection had been withdrawn in view of Applicant’s amendments to the claims to recite a modified CpG that is “racemic”. However, Applicants have removed the term “racemic” from the claims and will readdress Cook as it applies to Claims 1 and 3-5.

In order for a reference to anticipate a claimed invention, every aspect of the claim must be explicitly or inherently taught within the reference. As such, Cook clearly fails to anticipate instant Claims 1 and 3-5.

Cook fails to teach a CpG-containing phosphorothioate oligonucleotide or any other type of oligonucleotide. Cook only describes **monomers** that can be used in the preparation of oligonucleotides. Moreover, Cook does not teach the immune stimulating properties of the CpG dinucleotide or that the claimed modifications to the CpG dinucleotide can reduce the side effects (i.e., immune-stimulation) of antisense oligonucleotides having this dinucleotide. As such, Cook fails to anticipate Claims 1 and 3-5. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 1 and 3-5 Under 35 U.S.C. §102(b)

Claims 1 and 3-5 are rejected under 35 U.S.C. §102(b) as being anticipated by Agrawal (WO 94/01550) as evidenced by Cook (US 5,212,295).

Applicants respectfully disagree. As stated on page 10 of the Office Action, Agrawal does not specifically teach the modifications of the CpG dinucleotide or that such modifications reduce the side effects of oligonucleotide therapy. Therefore, Agrawal does not explicitly or inherently teach any aspect of the instant invention. Moreover, as discussed above, Cook fails to provide the teachings that Agrawal lacks. Reconsideration and withdrawal of the rejection are respectfully requested.

### CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

Dated: February 13 2007  
Keown & Associates  
500 West Cummings Park  
Suite 1200  
Woburn, MA 01801  
Telephone: 781/938-1805  
Facsimile: 781/938-4777

By: Joseph C. Zuccherro  
Joseph C. Zuccherro  
Registration No. 55,762